ABSTRACT OF THE DISCLOSURE

Optically controlled micro-electromechanical systems (MEMS) is disclosed. In one embodiment, a MEMS device may include a rotatable mirror having an optical sensor that is in electrical communication with the rotatable mirror via an associated electrode. Electrical potential may be supplied to an appropriately configured optical sensor so that a variable range of voltages may be supplied to the rotatable mirror. In operation, an optical control beam may be directed onto the optical sensor where it may be sampled to determine its optical characteristics (e.g., optical wavelength, light intensity, position, polarization, duty cycle, etc.) The optical sensor may then supply voltage to the rotatable mirror based on the determined optical characteristics of the optical control beam, causing the rotatable mirror to rotate about one or more axes.